compound of the formula: 1.

$$\begin{array}{c|c}
R^2 & & & \\
\hline
Aryl & & & \\
\hline
O & O & (CR^3R^4) & & \\
\hline
O & O & & R^7
\end{array}$$

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or  $OC_{1-3}$ alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine,  $\Delta^3$ -piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

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A compound of the formula:

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring:

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=\overline{\phi})<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub> 3alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>n</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC1-3alkyl;

 $R^3 \& R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine,  $\Delta^3$ -piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC1-3alkyl, phenyl which can be unsubstituted or substituted

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5 ub A2 optionally with halogen,  $CF_3$ ,  $OC_{1-3}$ alkyl, or  $C_{1-3}$ alkyl, or substituted on nitrogen with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen,  $CF_3$ ,  $OC_{1-3}$ alkyl, or  $C_{1-3}$ alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

## 3. A compound of the formula:

R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4 and any pharmaceutically acceptable salts and solvates.

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4. A Compound of the formula:

- s  $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;
  - R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;
  - R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
  - R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4 and any pharmaceutically acceptable salts and solvates.

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5. A method for lowering IOP which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>5</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

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6. A method for lowering IOP which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenylor monocyclic heteroaromatic ring;

- R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;
- $R^2$  is H, halogen,  $C_{1-3}$ alkyl,  $S(=O)_m C_{1-3}$ alkyl,  $S(=O)_2 NR^5 R^6$ , or  $C_{1-3}$ alkyl substituted optionally with OH, or  $OC_{1-3}$ alkyl;
- R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, \( \Delta^3\)-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or

Sub A3

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more substituents optionally selected from  $C_{1-3}$ alkyl,  $C_{1-3}$ alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4; m is 0, 1 or 2 and any pharmaceutically acceptable salts and solvates.

7. A method for lowering IOP which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

$$R^{9}$$
 $N$ 
 $S$ 
 $CR^{3}R^{4})_{n}$ 
 $R^{7}$ 

 $R^3$  &  $R^4$  are independently H,  $C_{1\text{--}3}$  alkyl, or  $C_{1\text{--}3}$  alkyl substituted optionally with OH or  $OC_{1\text{--}3}$  alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4

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and any pharmaceutically acceptable salts and solvates.

8. A method for lowering IOP which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1\text{-}3}$  alkyl, or  $C_{1\text{-}3}$  alkyl substituted optionally with OH or  $OC_{1\text{-}3}$  alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4 and any pharmaceutically acceptable salts and solvates.

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9. A method for improving blood flow to the optic nerve head and the retina which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

Sub

$$\begin{array}{c|c}
R^2 & R^1 \\
\hline
Anyl & R^2 \\
\hline
O & O & CR^3R^4) & R^7
\end{array}$$

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

 $R^3$ ,  $R^4$  are independently H,  $C_{1\text{-}3}$ alkyl,  $C_{1\text{-}3}$ alkyl substituted optionally with OH or  $OC_{1\text{-}3}$ alkyl;  $R^5$ ,  $R^6$  are independently H,  $C_{1\text{-}3}$ alkyl,  $C_{2\text{-}3}$ alkyl substituted optionally with OH,  $OC_{1\text{-}3}$ alkyl, or  $R^5$  and  $R^6$  can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with  $C_{1\text{-}3}$ alkyl,  $C_{2\text{-}3}$ alkyl substituted optionally with OH or  $OC_{1\text{-}3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

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10. A method for improving blood flow to the optic nerve head and the retina which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

 $\begin{array}{c|c}
R^2 & (CR^3R^4) & N \\
Aryl & R^1
\end{array}$ 

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

- R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;
- R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;
- R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine

Sub A4 or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4; m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

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11. A method for improving blood flow to the optic nerve head and the retina which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

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 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

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R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

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- R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;
- n is 2 to 4 and any pharmaceutically acceptable salts and solvates.
- 12. A method for improving blood flow to the optic nerve head and the retina which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

- $R^3$  &  $R^4$  are independently H,  $C_{1\text{--}3}$ alkyl, or  $C_{1\text{--}3}$ alkyl substituted optionally with OH or  $OC_{1\text{--}3}$ alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;
- R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- 25 R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4 and any pharmaceutically acceptable salts and solvates.

13. A method for treating retinal diseases which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

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Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

 $R^1$  is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;  $R^2$  is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

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m is\0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

14. A method for treating retinal diseases which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

R<sup>2</sup> (CR<sup>3</sup>R<sup>4</sup>) n N R<sup>7</sup>

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected



from N O, S, such as pyrrolidine, piperidine,  $\Delta^3$ -piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from  $C_{1-3}$ alkyl,  $C_{1-3}$ alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or  $C_{1-3}$ alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

15. A method for treating retinal diseases which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

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R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

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R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1</sub>\3alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

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R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

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 $R^{10}$  is  $C_{1-4}$ alkyl, or  $R^{10}$  can be joined to  $R^{9}$  to form a fused bicyclic ring system such as  $\setminus$  indoline;

n is 2 to 4

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and any pharmaceutically acceptable salts and solvates.

16. A method for treating retinal diseases which comprises administering to a person in need thereof, a composition comprising an effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates.

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17. A composition for lowering IOP comprising a pharmaceutically effective amount of a compound of the formula:

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Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1</sub>3alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

18. A composition for lowering IOP comprising a pharmaceutically effective amount of a compound of the formula:

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Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenylor monocyclic heteroaromatic ring;

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

 $R^2$  is H, halogen,  $C_{1-3}$ alkyl,  $S(=O)_m C_{1-3}$ alkyl,  $S(=O)_2 NR^5 R^6$ , or  $C_{1-3}$ alkyl substituted optionally with OH, or  $OC_{1-3}$ alkyl;

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or

Sub A6

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more substituents optionally selected from  $C_{1-3}$ alkyl,  $C_{1-3}$ alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

19. A composition for lowering IOP comprising a pharmaceutically effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1.3}$ alkyl, or  $C_{1.3}$ alkyl substituted optionally with OH or  $OC_{1.3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

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n is 2 to 4

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and any pharmaceutically acceptable salts and solvates.

20. A composition for lowering IOP comprising a pharmaceutically effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates.

21. A composition for improving blood flow to the optic nerve head and the retina comprising a pharmaceutically effective amount of a compound of the formula:



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$$\begin{array}{c|c}
R^{2} & R^{1} \\
\hline
 & N \\
 & O \\
 &$$

50b 87

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

- R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

22. A composition for improving blood flow to the optic nerve head and the retina comprising a pharmaceutically effective amount of a compound of the formula:

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R<sup>2</sup> (CR<sup>3</sup>R<sup>4</sup>) n N R<sup>7</sup>

50h

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1</sub>-3alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen

Sub A7 with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen,  $CF_3$ ,  $QC_{1-3}$ alkyl, or  $C_{1-3}$ alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

23. A composition for improving blood flow to the optic nerve head and the retina comprising a pharmaceutically effective amount of a compound of the formula:

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 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates.

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24. A composition for improving blood flow to the optic nerve head and the retina comprising a pharmaceutically effective amount of a Compound of the formula:

- $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;
- R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;
- 20 n is 2 to 4
  and any pharmaceutically acceptable salts and solvates.



25. A composition for treating retinal diseases comprising a pharmaceutically effective amount of a compound of the formula:

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$$R^{2}$$
 $Aryl$ 
 $R^{1}$ 
 $CR^{3}R^{4}$ 
 $R^{7}$ 

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

26. A composition for treating retinal diseases comprising a pharmaceutically effective amount of a compound of the formula:

$$\begin{array}{c|c}
R^2 & (CR^3R^4) & R^8 \\
\hline
 & N & R^7 \\
\hline
 & O & O \\
\end{array}$$

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Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl,

R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted on substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen

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50b 128 with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

27. A composition for treating retinal diseases comprising a pharmaceutically effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub> alkyl;

R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates.

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28. A composition for treating retinal diseases comprising a pharmaceutically effective amount of a compound of the formula:

- $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;
- R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;
- n is 2 to 4
  and any pharmaceutically acceptable salts and solvates.
  - 29. A method for improving blood flow to the optic nerve head or the retina which comprises administering to a person in need thereof, a composition comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.

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- 30. A composition for improving blood flow to the optic nerve head or the retina comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 31. A method for providing neuroprotection to the optic nerve head or the retina which comprises administering to a person in need thereof, a composition comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 32. A composition for providing neuroprotection to the optic nerve head or the retina comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 33. A method for treating retinal diseases which comprises administering to a person in need thereof, a composition comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 34. The method of Claim I wherein the retinal disease is selected from the group consisting of glaucoma, age related macular degeneration, optic neuritis, ischemic disorders, and retinal edema.
- 35. A composition for treating retinal diseases comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 36. The composition of Claim 35 wherein the retinal diseases are selected from the group consisting of glaucoma, age related macular degeneration, optic neuritis, ischemic disorders, diabetic retinopathy, and retinal edema.
- 37. A method for lowering IOP which comprises administering to a person in need thereof, a composition comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.
- 38. A composition for lowering IOP comprising a pharmaceutically effective amount of a compound with 5HT<sub>7</sub> receptor affinity.

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39. A method for treating persons suffering from a sleeping disorder, depression, schizophrenia, anxiety, circadian rhythm disorders, and centrally and peripherally mediated hypertension, which comprises, administering a composition comprising a pharmaceutically effective amount of a compound of the formula:

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monodyclic heteroaromatic ring;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl; R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

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and any pharmaceutically acceptable salts and solvates.

40. A method for treating persons suffering from a sleeping disorder, depression, schizophrenia, anxiety, obsessive compulsive disorder, circadian rhythem disorders, and centrally and peripherally mediated hypertension which comprises, administering a composition comprising a pharmaceutically effective amount of a compound of the formula:

Wherein the dashed bond represents a single or double bond;

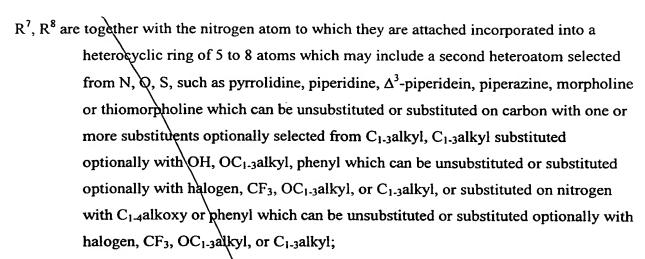
Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

- R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;
- R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;
- $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;
- R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

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n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates.

41. A method for treating persons suffering from a sleeping disorder, depression, schizophrenia, anxiety, obsessive compulsive disorders, circadian rhythm disorders, and centrally and peripherally mediated hypertension which comprises, administering a composition comprising a pharmaceutically effective amount of a compound of the formula:

 $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen

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with  $C_{1-4}$ alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen,  $CF_3$ ,  $OC_{1-3}$ alkyl, or  $C_{1-3}$ alkyl;

- R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates.

42. A method for treating persons suffering from a sleeping disorder, depression, schizophrenia, anxiety, obsessive compulsive disorder, circadian rhythm disorders, and centrally and peripherally mediated hypertension which comprises, administering a composition comprising a pharmaceutically effective amount of a compound of the formula:

$$R^{11}$$
 $N$ 
 $S - R^{12}$ 
 $R^{8}$ 
 $(CR^{3}R^{4})_{n} - N$ 
 $R^{7}$ 

- $R^3$  &  $R^4$  are independently H,  $C_{1\text{--}3}$ alkyl, or  $C_{1\text{--}3}$ alkyl substituted optionally with OH or  $OC_{1\text{--}3}$ alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

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R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;

R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4 and any pharmaceutically acceptable salts and solvates.

43. A composition comprising a pharmaceutically effective amount of a compound of the formula:

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Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

 $R^1$  is H, OH,  $OC_{1-3}$ alkyl,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkyl, substituted optionally with OH, or  $OC_{1-3}$ alkyl;  $R^2$  is H, halogen,  $C_{1-3}$ alkyl,  $CONR^5R^6$ ,  $S(=O)_{1-3}$ alkyl,  $S(=O)_2$   $NR^5R^6$ ,  $C_{1-3}$ alkyl substituted optionally with OH, or  $OC_{1-3}$ alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl; R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted.

a<sup>C)</sup>

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optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates in a pharmaceutically acceptable carrier.

44. A composition comprising a pharmaceutically effective amount of a compound of the formula:

Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

- R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, or S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazoyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;
- R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub> NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;
- R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
- R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6

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membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salts and solvates in a pharmaceutically acceptable carrier.

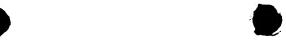
45. A composition comprising a pharmaceutically effective amount of a compound of the formula:

- 20 R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;
  - R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen

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with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

- R<sup>9</sup> is phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;
- R<sup>10</sup> is C<sub>1-4</sub>alkyl, or R<sup>10</sup> can be joined to R<sup>9</sup> to form a fused bicyclic ring system such as indoline;

n is 2 to 4

and any pharmaceutically acceptable salts and solvates in a pharmaceutically acceptable carrier.

46. A composition comprising a pharmaceutically effective amount of a compound of the formula:

- $R^3$  &  $R^4$  are independently H,  $C_{1-3}$ alkyl, or  $C_{1-3}$ alkyl substituted optionally with OH or  $OC_{1-3}$ alkyl;
- R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring of 5 to 8 atoms which may include a second heteroatom selected from N, O, S, such as pyrrolidine, piperidine, Δ<sup>3</sup>-piperidein, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;
- R<sup>11</sup> is C<sub>1-3</sub>alkyl, phenyl or a monocyclic heteroaromatic ring which can be unsubstituted or substituted with C<sub>1-4</sub> alkyl, halogen, OC<sub>1-4</sub>alkyl;





R<sup>12</sup> is C<sub>1-4</sub>alkyl or a fused bicyclic heteroaromatic ring such as thieno[3,2-e]-1,2-thiazine, or 1,2-benzothiazine, or R<sup>12</sup> can be joined to R<sup>11</sup> to form a fused bicyclic ring system such as 2,3-dihydro-benzo[c]isoxazole;

n is 2 to 4

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and any pharmaceutically acceptable salts and solvates in a pharmaceutically acceptable carrier.

47. The Compound of Claim 1 selected from the group consisting of: 6-Chloro-2-[4-[4-(2H-benzimidazo-2-oxo-1-yl)piperidin-1-yl]butyl]-2H-thieno[3,2-e]-1,2thiazine 1,1-dioxide; 6-Chloro-2-[4-(4-phenylpiperazin-1-xl)butyl]-2H-thieno[3,2-e]-1,2-thiazine 1,1-dioxide: 6-Chloro-2-[4-[4-(2-fluorophenyl)piperazin-1-yl]butyl]-2H-thieno[3,2-e]-1,2-thiazine 1,1dioxide; 6-Chloro-2-[3-[4-(3-trifluoromethylphenyl)piperazin-1-yl]propyl]-2H-thieno[3,2-e]-1,2thiazine 1,1-dioxide; 6-Chloro-2-[3-[4-(2H-benzimidazol-2-oxo)piperidin-1-yl]propyl]-2H-thieno[3,2-e]-1,2thiazine 1,1-dioxide.

48. The Compound of Claim 3 selected from the group consisting of: 3-[4-(3-Chlorophenyl)piperazin-1-yl]propylsulfonyl-2,3-dihydro-1*H*-indole; 3-(1,2,3,4-Tetrahydroisoguinolin-2-yl)propylsulfonyl-2,3-dihydro-1*H*-indole; 3-[4-(3-Trifluoromethylphenyl)piperazin-1-yl]propylsulfonyl-2,3-dihydro-1*H*-indole; 3-[4-(2-Methoxyphenyl)piperazin-1-yl]propylsulfonyl-2,3-dihydro-1H-indole;

3-(1,2,3,4-Tetrahydroisoquinolin-2-yl)-N-methyl-N-phenyl-propylsulfonamide;

49. The Compound of Claim 4 selected from the group consisting of: N-[3-[4-(3-Chlorophenyl)piperazin-1-yl]propyl]-N-(4-methoxyphenyl)-propanesulfonamide; N-[3-(1,2,3,4-Tetrahydroisoquinolin-2-yl)propyl]-N-(4-methoxyphenyl)-propanesulfonamide; N-[3-[4-(3-Chlorophenyl)piperazin-1-yl]propyl]-N-(4-methoxyphenyl)-propanesulfonamide; N-[3-[4-(2-Methoxyphenyl)piperazin-1-yl]propyl]-N-(4-methoxyphenyl)propanesulfonamide; N-[3-[4-(2-Chlorophenyl)piperazin-1-yl]propyl]-N-(4-methoxyphenyl)-propanesulfonamide.